IN THE SPECIFICATION:

The paragraph beginning at page 1, line 12 has been amended as follows:

In particular in the acquisition of x-ray images, the radiation beam path is normally blocked ~~or blocked~~ at the outer edge with shielding elements – for example, lead plates or the like. The radiation exposure for the examined subject (usually a person) is thereby minimized, and irradiation and/or scattered radiation effects are at least partially reduced. Furthermore, the data quantity is reduced. This concerns both the storage of the image data and its reproduction and processing.

The paragraph beginning at page 1, line 23 has been amended as follows:

Naturally, it is possible to acquire and ~~represent~~ <u>display</u> the entire image and then have a user ~~scan~~ <u>enter an input representing</u> the position of the diaphragm edges. For example, the user can plot these edge positions interactively in the displayed image, but this procedure is slow, laborious and error-prone.

The paragraph beginning at page 2, line 1 has been amended as follows:

Therefore, methods have been developed for computer-assisted detection of diaphragm edges by means of which the detection mentioned above is automatically possible. German ~~OS 197 42 152~~ <u>OS 197 42 152</u>, German OS 197 34 725 and United States Patent No. 5,351,306 disclose examples of such methods.

The paragraph beginning at page 4, line 12 has been amended as follows:

Dependent on the information about the inner structure of the diaphragm, the diaphragm edges can, for example, <u>exhibit</u> known angles with one another. In this case it is possible, as already mentioned, to detect the diaphragm edges by the computer detecting groups of detected image edges that, with one another, form at least one of the known angles.

The paragraph beginning at page 5, line 22 has been amended as follows:

X-ray radiation is ionizing radiation. In order to keep the radiation exposure of the subject 3 to a minimum, according to Figure 1 a diaphragm 7 is ~~dispose~~ <u>disposed</u> in the beam path of the x-ray arrangement. Among other things, the diaphragm 7 causes diaphragm edges 8 in the image B, in addition to image edges 9 caused by the subject 3.

The paragraph beginning at page 6, line 3 has been amended as follows:

According to Figure 2, the diaphragm edges 8 form, for example, a rectangle. Therefore, for any given diaphragm <u>edge 8</u> three further diaphragm edges 8 are present in the image B, independent of the arrangement and/or rotation of the diaphragm 7. One of these further diaphragm edges 8 runs parallel to the first cited diaphragm edge 8 and both other additional diaphragm edges 8 form an angle of 90° with the first cited diaphragm edge 8. This information about the inner structure of the diaphragm 7 can be used ~~in order~~ by the computer for detecting the diaphragm edges 8.

The paragraph beginning at page 7, line 16 has been amended as follows:

As can be seen from Figure 2, the derivative directions R1 and R2 form a direction pair of derivative directions R1, R2 ~~aligned~~ <u>directed</u> opposite to one another. The same is true for the derivative directions R3 and R4. The derivative directions R1 through R4 thereby preferably run parallel to the main axes x, y. In particular, the direction pairs form with one another an angle that is significantly different from 0° and 180°, in the present example equal to 90°.

The paragraph beginning at page 8, line 3 has been amended as follows:

According to Figure 5, in steps S10 through S12 curve indices i, j and a derivative sum W are initially set to zero. In a step S13, the derivative A3 is then determined at the point (i,j) according to the formula

$$A3(i,j) = z(i,j+a) - z(i,j-b)$$

wherein a and b are non-negative offsets. One of the two offsets a, b may be zero, but at least one must be different ~~than~~ <u>from</u> zero. The offsets a, b preferably assume the same value and/or lie between one and three.

The paragraph beginning at page 9, line 21 has been amended as follows:

To detect the ~~derivative directions~~ <u>diaphragm edges 8</u> in step S4 of Figure 3, a method is executed that is subsequently explained in detail in connection with Figure 6.

The paragraph beginning at page 12, line 11 has been amended as follows:

By the inventive detection method, ~~weekly~~ <u>weakly</u> contrasting diaphragm edges 8 can also be automatically detected with a computer with a probability limited in terms of reliability. The consideration of the known diaphragm structure enables the largely predominant part of the possible error recognition to be excluded based on plausibility tests.